Appendix 1
Formula for Adjudication Audit

Definitions

n = Number of claims in sample

xydx

x, y, d = $\sum_{i=1}^{n} x_i$, $\sum_{i=1}^{n} y_i$, $\sum_{i=1}^{n} d_i$ for the corresponding totals found in the sample

d/x = *p* = Discrepancy found in the sample expressed as a proportion of the total Contractor payments found in the sample

P = Actual discrepancy in the universe expressed as a proportion of the total contract payments

r = |P - *p*| = Absolute precision of *p*

S*p* = $\sqrt{\frac{n\sum_{n-1}^{n}(d_i)^2 - \left(\sum_{i=1}^{n} d_i\right)^2}{x^2(n-1)}}$ = Standard error of *p*

t = Normal deviation corresponding to desired two-sided confidence level. For a 95 percent two-sided confidence level, t = 1.96.

The absolute precision of *p* may be stated at any confidence level by *p* □ t □ S*p*. The midpoint of this confidence interval is *p*, which represents that estimated dollar amount found to be in discrepancy for the purpose of implementing RFP requirements and for other State purposes.

Appendix 2
Formula for Processing Audit

Attribute sampling will be used during the Processing Audit to ascertain what proportion of line items contain one or more processing errors (automated or manual).

Definitions

N = Total number of line items in the universe

A = Total number of line items in the universe that contain one or more processing errors

P = A/N = Proportion of all line items in the universe that contain one or more processing errors

n = Total number of line items in the sample

a = Total number of line items in the sample that contain one or more processing errors

p = a/n = Proportion of all line items in the sample that contain one or more processing errors. Also, the sample estimate of P

d = |p - P| = absolute precision of p

Sp = $\sqrt{\left(\frac{N-n}{N}\right)\left(\frac{p(1-p)}{n}\right)}$ = $\sqrt{\left(\frac{N-n}{N}\right)\left(\frac{p \bullet q}{n}\right)}$ = Standard error of p

Where q=(1-p), which is the proportion of line items in the sample containing no processing errors

This formula is reduced to

Sp = $\sqrt{\left(\frac{p \bullet q}{n}\right)}$

when n is small compared to N (normally five percent or less of N, since $\frac{N-n}{N}$ becomes close to 1).

t = Normal deviation corresponding to a two-sided confidence level. For example, t = 1.96 for a 95 percent two-sided confidence level, and t = 1.645 for a 90 percent two-sided confidence level.

This, 95 percent confidence limits of p would be p □ 1.96 □ Sp, and 90 percent confidence limits of p would be p □ 1.645 □ Sp.